

ANALYST:		VPDES NO	
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Parameter: Total Suspended Solids  
Method: Gravimetric, 103-105 °C  
02-06

METHOD OF ANALYSIS:

	18th EDITION OF STANDARD METHODS-2540-D
	EPA METHODS OF CHEMICAL ANALYSIS-160.2
	USGS-METHODS IN WATER AND FLUVIAL SEDIMENTS-I-3765-85

- 1) Is glass fiber filter a Whatman Grade 934AH, Pall Type A/E (previously Gelman Type A/E), Millipore Type AP40, or equivalent? [SM-2; 160.2-6.1]
- 2) Is a desiccator, drying oven for operating at 103°-105°C, analytical balance, filtration apparatus, and suction flask available and in operable condition? [SM-2; 160.2-6]
- 3) Does desiccator have an adequate seal? [Permit]
- 4) Is excess desiccator sealant removed? [Permit]
- 5) Does desiccator have active color indicating desiccant? [Permit]
- 6) Is the analytical balance capable of weighing to 0.1 mg? [SM-2; 160.2;6.6]
- 7) Is the filter washed under vacuum, with 3 successive 20 mL portions of distilled water? [SM-3; 160.2-7.1]
- 8) Is the filter dried in oven at 103°-105°C for at least 1 hour? (MUST DOCUMENT) [SM-3.a; 160.2-7.1]
- 9) After drying, is filter, Gooch crucible and/or weighing dish stored in desiccator until needed? [SM-3.a; 160.2-7.1]
- 10) Is filter, Gooch crucible and/or weighing dish weighed correctly after cooling and before use? [SM-3.a; 160.2-7.1]
- 11) Is filter or Gooch crucible handled with forceps or tongs? [Permit; 160.2-7.1]
- 12) Is sample well-mixed prior to filtration? [SM-3.c; 160.2-7.4]
- 13) Is sample volume measured using appropriate device? [Permit]
- 14) Is filter seated with distilled water prior to filtering sample? [SM-3.c; 160.2-7.3]
- 15) Is sample filtered under vacuum? [SM-3.c; 160.2-7.3]
- 16) Is sample filtration time limited to 10 minutes? [SM-3.b; 160.2-7.2]
- 17) After sample is filtered, is filter washed with 3 successive 10 mL portions of distilled water? [SM-3.c; 160.2-7.5]
- 18) Is filter, Gooch crucible and/or weighing dish dried for at least one hour at 103°-105°C and is drying time documented? [SM-3.c; 160.2-7.6]
- 19) Is filter, Gooch crucible and/or weighing dish desiccated until they reach room temperature? [SM-3.c; 160.2-7.6]
- 20) Is the sufficiency of the drying time checked periodically? (VPDES permit holders conducting their testing must verify the adequacy of drying time by multiple weighings once per year. Laboratories must reweigh each sample or maintain records for each client/outfall documenting drying time adequacy. These records must be updated annually.) [Permit]

Y	N

	Y	N
21) Are all weights recorded on laboratory bench sheets? [Permit]		
22) Was filter yield between 10.0 mg and 200 mg, or filter at least 1000 mLs of sample? [SM-3.b]		
23) Is the sample value calculated correctly? [SM-4; 160.2-8]  $\text{TSS (mg/L)} = \frac{(A - B) \times 1000 \text{ mL/L}}{\text{sample volume (mL)}}$ A = weight of filter + dried residue (mg) B = weight of filter (mg)		
24) Were duplicates analyzed on 5% of samples? Did the results of the duplicate samples agree within 5% of their average? [SM 2540 D-3.c, SM 1020 B-6 & ; Permit]		

PROBLEMS: